



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

MAY 13 2010

EPA Region 5 Records Ctr.



363304

REPLY TO THE ATTENTION OF:

MEMORANDUM

SUBJECT: **ACTION MEMORANDUM:** Documentation and Justification of an Emergency Removal Action Conducted at the West Vermont Drinking Water Contamination Site, Speedway, Indiana (Site ID #B5UJ)

FROM: Brian Schlieger, On-Scene Coordinator
Emergency Response Branch 2 – Removal Section 3 *BSL*

Shelly Lam, On-Scene Coordinator
Emergency Response Branch 1 – Removal Section 1

THRU: Charles Gebien, Acting Chief *CG*
Emergency Response Branch 2

TO: Richard C. Karl, Director
Superfund Division

I. PURPOSE

The purpose of this Action Memorandum is to request and document your approval to expend up to \$68,704 to conduct emergency response actions for the West Vermont Drinking Water Contamination in Speedway, Marion County, Indiana. ERB 2 Branch Chief Linda Nachowicz authorized verbal funding of \$ 40,000 on October 20, 2010. The response actions proposed herein were taken to mitigate an imminent and substantial threat to public health and the environment at the West Vermont Drinking Water Contamination Site, also referred to as the "Site." The Site is located in Speedway, Marion County, Indiana, and is contaminated with hazardous substances, pollutants, or contaminants. Specifically, vinyl chloride was detected in drinking water samples at a high concentration of 62.7 parts per billion (ppb) which exceeds U.S. EPA's maximum contaminant level (MCL) for drinking water of 2 ppb. The vinyl chloride contamination is the result of a contamination plume, for which a source has not yet been identified. The vinyl chloride has been detected at three residential properties 1) West Vermont Street, 2) West Vermont Street, and 3) Cossell Road, Speedway, Indiana as depicted by **Figure 1** in Attachment 3.

The emergency response actions taken, as described by this Action Memorandum, mitigated threats to public health, welfare, and the environment, as a result of the threat of an uncontrolled release of vinyl chloride in private drinking water wells. The presence of these factors classified this removal action as an emergency removal action.

The emergency removal action for the Site included obtaining access to the above referenced properties within the Site and installing water treatment systems for the three residences to remove vinyl chloride from the drinking water source, and providing drinking water to the effected residents prior to installation of fully operational treatment systems. The removal actions have been conducted in accordance with Section 104(a)(1) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 USC § 9604(a)(1), to abate or eliminate the immediate threat posed to public health and/or the environment by the presence of the hazardous substances. The response activities required 10 on-site working days to complete.

II. SITE CONDITIONS AND BACKGROUND

CERCLIS ID #INN000510429

A. Physical Location and Description

The Site is a residential area bound by W Vermont Street on the south, Holt Road on the east, W Alley 700N on the north, and Grand Avenue on the west in Speedway, Marion County, Indiana. The Site is bordered by the Speedway, Indiana municipal water treatment facility to the south, Eagle Creek and industrial properties to the west, residential and industrial properties the east, and industrial properties to the north. The vinyl chloride contamination is the result of a contamination plume, of which a source has not yet been identified. The vinyl chloride has been detected at three properties 1) West Vermont Street, 2) West Vermont Street, and 3) Cossell Road Speedway, Indiana as depicted by **Figure 1** in Attachment 3.

B. Background

There have been several historical releases of various volatile organic compounds (VOCs) into groundwater north, northeast, and east of the West Vermont Street properties in Speedway, Indiana. During periodic sampling of the neighborhood, the Marion County Health Department (MCHD) documented the presence of vinyl chloride at three residences along West Vermont Street at levels up to 62 ppb in groundwater used as a drinking water source. MCDH conducted several sampling events from June 2009 to January 2010. MCHD analytical results are summarized in Table 4.0 of Attachment 4, and complete results are included in the Administrative Record in Attachment 2.

Pursuant to 40 C.F.R. Section 300.415 (I), post removal site control should be considered prior to starting a removal action. Long-term operation of the treatment systems will not be necessary as these systems will only be operational until installation of a municipal water supply can be completed for all residences included in the Site boundaries. Municipal water supply installation is expected to occur within one year of the proposed actions taken under this

memorandum. Installation of municipal water supplies would be conducted under a separate action memo. The Site is not on the National Priorities List (NPL).

C. Environmental Justice Analysis

The area surrounding the Site was screened for Environmental Justice (EJ) concerns using Region 5's EJ Assist Tool (which applies the interim version of the national EJ Strategic Enforcement Assessment Tool (EJSEAT)). Census tracts with a score of 1, 2, or 3 are considered to be high-priority potential EJ areas of concern according to EPA Region 5. The Site is in a census tract with a score of 1 (Attachment A). Therefore, Region 5 considers this Site to be a high-priority potential EJ area of concern. Please refer to the attached analysis for additional information.

III. THREATS TO PUBLIC HEALTH OR WELFARE OR THE ENVIRONMENT, AND STATUTORY AND REGULATORY AUTHORITIES

Conditions present at the Site constitute a threat to public health, welfare or the environment based upon the factors set forth in 40 C.F.R. § 300.415(b)(2) of the National Oil and Hazardous Substances Pollution Contingency Plan ("NCP"). The threats include, but may not be limited to, the following:

- A. Actual or potential exposure to nearby populations, animals, or the food chain from hazardous substances or pollutants or contaminants

This factor is present at the Site due to the presence of vinyl chloride in drinking water of three residences as documented by the MCHD. These results are included in Table 1 of Attachment 4. The concentrations of vinyl chloride documented in the drinking water ranges from 2 to 62 ppb. The U.S. EPA MCL for drinking water is 2 ppb. Vinyl chloride is a hazardous substance, as defined by section 101(14) of CERCLA. According to the Agency for Toxic Substances and Disease Registry (ATSDR), the effects of drinking high levels of vinyl chloride are unknown. However, the U.S. Department of Health and Human Services has determined that vinyl chloride is a known carcinogen. In addition to ingestion, there is a potential exposure to inhalation of vinyl chloride vapors via use of water for cooking, showering, and bathing. Breathing vinyl chloride for long periods of time can result in permanent liver damage, immune reactions, nerve damage, and liver cancer.

- B. Actual or potential contamination of drinking water supplies or sensitive ecosystems

This factor is present as documented by IDEM analytical sampling results of the three identified residences. Results are included in Table 4.0 of Attachment 4.

- C. The availability of other appropriate federal or state response mechanisms to respond to the release.

U.S. EPA Emergency Response Branch was asked by both IDEM and MCHD to mitigate the threat of exposure to vinyl chloride in drinking water.

IV. ENDANGERMENT DETERMINATION

Given the Site conditions, the nature of the known and suspected hazardous substances at the Site, and the potential exposure pathways described in Sections II and III, actual or threatened releases of hazardous substances at this Site, if not addressed by implementing the response actions selected in this Action Memorandum, may present an imminent and substantial endangerment to public health, or welfare, or the environment.

V. ACTIONS CONDUCTED AND ESTIMATED COSTS

A. Description of the Actions Conducted

The response actions described in the memorandum directly address actual or potential releases of hazardous substances on Site, which may pose an imminent and substantial threat to public health, or welfare, or the environment arising from vinyl chloride contamination. Response actions included, but may not be limited to, the following tasks:

- 1) Developed and implemented a Site Health and Safety Plan;
- 2) Provided drinking water prior to full operation of mitigation system
- 3) Designed, developed, and installed three (3) air stripper systems for removal of vinyl chloride in private drinking water wells; and
- 4) Installed secondary carbon filtration system, as necessary to supplement air stripper.

These removal activities required 10 on-site working days to complete. The air stripper systems installation occurred on November 2 through November 5, 2009 for [redacted] and [redacted] West Vermont Street. The system installed at [redacted] Cossell Road was installed on February 18 and 19, 2010.

The Detailed cleanup contractor cost is presented in Attachment 4 and the Independent Government Cost Estimate is presented in Attachment 3; estimated costs are summarized below:

REMOVAL PROJECT CEILING ESTIMATE

EXTRAMURAL COSTS:

Regional Removal Allowance Costs:

Total Cleanup Contractor Costs	\$ 39,743
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(This cost category includes estimates for: ERRS
Subcontractors, Notices to Proceed, and Interagency

Agreements with Other Federal Agencies. Includes a 20% Contingency.)

Other Extramural Costs Not Funded from the Regional Allowance:

Total START , including multiplier \$ 20,000

Subtotal, Extramural Costs \$ 59,743

Extramural Costs Contingency (15%) \$ 8,961

TOTAL REMOVAL ACTION PROJECT CEILING \$ 68,704

B. Contribution to Remedial Performance

This action is recommended in consultation with IDEM and Don Heller from the U.S. EPA Region 5 Land and Chemical Division. The Site is not currently being considered for listing on the National Priorities List.

C. Applicable or Relevant and Appropriate Requirements

All applicable or relevant and appropriate requirements ("ARARs") will be complied with to the extent practicable. U.S. EPA, Region 5 sent a letter to Harry Atkinson of IDEM on February 22, 2010 requesting identification of any potential state ARARs for this response action. U.S. EPA is awaiting a response from IDEM. Waste must be disposed of in compliance with the U.S. EPA Off-Site Rule 40 C.F.R. Section 300.440.

VI. EXPECTED CHANGE IN THE SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN

Continued risk to public health and the environment would have resulted if response actions were delayed or not taken. Delayed action would have increased the likelihood that vinyl chloride would enter private drinking water wells and may cause human and/or wildlife populations to come in direct contact by inhalation and/or ingestion of vinyl chloride.

VII. ENFORCEMENT

For administrative purposes, information concerning the enforcement strategy associated with this removal action is contained in a confidential Enforcement Addendum.

The total EPA costs for this removal action based on full-cost accounting practices that will be eligible for cost recovery are estimated to be \$175,731.¹

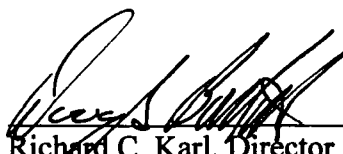
$$(\$68,704 + \$40,000) + (61.66\% \times \$108,704) = \$175,731$$

VIII. RECOMMENDATION

This decision document represents the completed response action for the West Vermont Drinking Water Contamination Site. It was developed in accordance with CERCLA as amended, and is not inconsistent with the NCP. This decision is based upon the Administrative Record for the removal action, an index of which is attached (Attachment 2) to this Action Memorandum.

Conditions at the West Vermont Drinking Water Contamination Site meet the criteria of Section 300.415(b) of the NCP for a removal action. The total removal ceiling, if approved, will be \$68,704. Of this, an estimated \$48,704 may be used for the cleanup contractor costs. I recommend your approval of the proposed removal action. You may indicate your decision by signing below.

APPROVE:


Richard C. Karl, Director
Superfund Division

DATE:

5/13/10

DISAPPROVE:

Richard C. Karl, Director
Superfund Division

DATE:

Enforcement Addendum

Attachments

1. Environmental Justice Analysis
2. Administrative Record Index
3. Figures for West Vermont Drinking Water Contamination Site
4. Drinking Water Result Above Detection Limit Summary
5. Independent Government Cost Estimate

¹ Direct Costs include direct extramural costs and direct intramural costs. Indirect costs are calculated based on an estimated indirect cost rate expressed as a percentage of site-specific direct costs, consistent with the full cost accounting methodology effective October 27, 2008. These estimates do not include pre-judgment interest, do not take into account other enforcement costs, including Department of Justice costs, and may be adjusted during the course of a removal action. The estimates are for illustrative purposes only and their use is not intended to create any rights for responsible parties. Neither the lack of a total cost estimate nor deviation of actual total costs from this estimate will affect the United States' right to cost recovery.

cc: David Chung, U.S. EPA, 5104A
Michael Chezik, U.S. DOI, w/o Enf. Addendum
Erin Brittain, IDEM, VRP
Harry Atkinson, IDEM, OLM/RSB

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ENFORCEMENT ADDENDUM

**West Vermont Drinking Water Contamination
Speedway, Marion County, Indiana**

April 2010

ENFORCEMENT CONFIDENTIAL
NOT SUBJECT TO DISCOVERY

[SEE SEPARATE FILE]

ATTACHMENT 1

EJ Analysis

**West Vermont Drinking Water Contamination
Speedway, Marion County, Indiana**

April 2010



ATTACHMENT 2

U.S. ENVIRONMENTAL PROTECTION AGENCY REMOVAL ACTION

ADMINISTRATIVE RECORD FOR WEST VERMONT DRINKING WATER CONTAMINATION SITE SPEEDWAY, MARION COUNTY, INDIANAPOLIS

ORIGINAL
MARCH 2010

<u>NO.</u>	<u>DATE</u>	<u>AUTHOR</u>	<u>RECIPIENT</u>	<u>TITLE/DESCRIPTION</u>	<u>PAGES</u>
1	07/00/06	ATSDR/ U.S. EPA	Public	ToxFAQs for Vinyl Chloride	2
2	10/08/09	McDaneil, K., IDEM	Gebien, C., U.S. EPA	E-mail Message re: IDEM's Request for U.S. EPA Assistance at the West Vermont Drinking Water Contamination Site	5
3	12/00/09	Marion County Health Dept.	U.S. EPA	Analytical Results for Residential Drinking Water in Speedway, Indiana (6/09-12/09)	55
4	02/22/10	Schlieger, B., U.S. EPA	Atkinson, H., IDEM	Letter re: U.S. EPA's Re- quest for IDEM to Identify any/all ARARS for the West Vermont Drinking Water Contamination Site	1
5	00/00/00	Schlieger, B., U.S. EPA	Karl, R., U.S. EPA	Action Memorandum: Documentation and Justification of a Time- Critical Removal Action Conducted at the West Vermont Drinking Water Contamination Site (PENDING)	

ATTACHMENT 3

Site Figures

West Vermont Drinking Water Contamination Speedway, Marion County, Indiana

April 2010

ATTACHMENT 4

Drinking Water Result Above Detection Limit Summary West Vermont Drinking Water Contamination Site Speedway, Marion County, Indiana

April 2010

West Vermont Street

Collection Date	Vinyl Chloride Concentration	
June 11, 2009	2.1	
June 25, 2009	1.5	
July 9, 2009	1.5	
July 20, 2009	1.7	
July 27, 2009	0.77	
August 12, 2009	1.2	
August 27, 2009	1.8	West Vermont Street
September 3, 2009	0.73	
September 10, 2009	0.85	
September 17, 2009	0.59	
June 11, 2009	4.5	
July 22, 2009	5.1	
July 27, 2009	4.3	
August 5, 2009	4.6	
August 12, 2009	5.6	
August 20, 2009	5.2	
August 27, 2009	1.3	
September 3, 2009	4.5	
September 10, 2009	3.6	
September 17, 2009	3.6	

Cossell Road

Collection Date	Result above Detection Limit	
	Vinyl Chloride Concentration	Styrene Concentration
November 20, 2009	54.0	0.97
December 1, 2009	62.7	0.66
December 29, 2009	45.8	BDL

Note: All other analyte concentrations were below method detection limits,
See full analytical report see administrative record. All results are reported in parts per billion.

BDL= Below Detection Limit

ATTACHMENT 5

Independent Government Cost Estimate

ATTACHMENT 5

INDEPENDENT GOVERNMENT COST ESTIMATE

**WEST VERMONT DRINKING WATER CONTAMINATION SITE
SPEEDWAY, MARION COUNTY, INDIANA**

APRIL 2010

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NOT RELEVANT TO THE SELECTION OF THE REMOVAL ACTION